

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION**

SEMCON IP INC.,

Plaintiff,

v.

KYOCERA CORPORATION,

Defendant.

§
§
§
§
§
§
§
§
§

Case No. 2:18-cv-00197-JRG

CLAIM CONSTRUCTION MEMORANDUM OPINION AND ORDER

Before the Court is the opening claim construction brief of Semcon IP Inc. (“Plaintiff”) (Dkt. No. 46, filed on June 12, 2019),¹ the response of Kyocera Corporation (“Defendant”) (Dkt. No. 48, filed on June 26, 2019), and Plaintiff’s reply (Dkt. No. 52, filed on July 3, 2019). The Court held a hearing on the issues of claim construction and claim definiteness on July 29, 2019. Having considered the arguments and evidence presented by the Parties at the hearing and in their briefing, the Court issues this Order.

¹ Citations to the Parties’ filings are to the filing’s number in the docket (Dkt. No.) and pin cites are to the page numbers assigned through ECF.

Table of Contents

I.	BACKGROUND	3
II.	LEGAL PRINCIPLES	5
A.	Claim Construction	5
B.	Departing from the Ordinary Meaning of a Claim Term.....	8
C.	Definiteness Under 35 U.S.C. § 112, ¶ 2 (pre-AIA) / § 112(b) (AIA)	9
III.	AGREED CONSTRUCTIONS	10
IV.	CONSTRUCTION OF DISPUTED TERMS.....	11
A.	“computer processor,” “processor,” “central processor,” “processing unit,” and “processing device”	11
B.	The Determining Terms	13
C.	The Executing-Instructions-While-Changing-the-Voltage-Terms	15
D.	The Operating-Conditions Terms	17
E.	“a counter”	18
F.	“clock frequency source,” “clock generator,” “clock frequency generator,” “programmable frequency generator,” and “frequency generator”	20
G.	“a voltage source”	22
H.	The Causing-a-Change-in-Voltage Terms	24
I.	The Changing-the-Frequency-While-Execution-of-Instructions-is-Stopped Terms	26
J.	“level of permitted power”	28
K.	“... is not capable of functioning ...” and “... can not function ...”	29
L.	The Monitoring Terms	31
M.	“reducing a magnitude of a difference”	33
V.	CONCLUSION	34

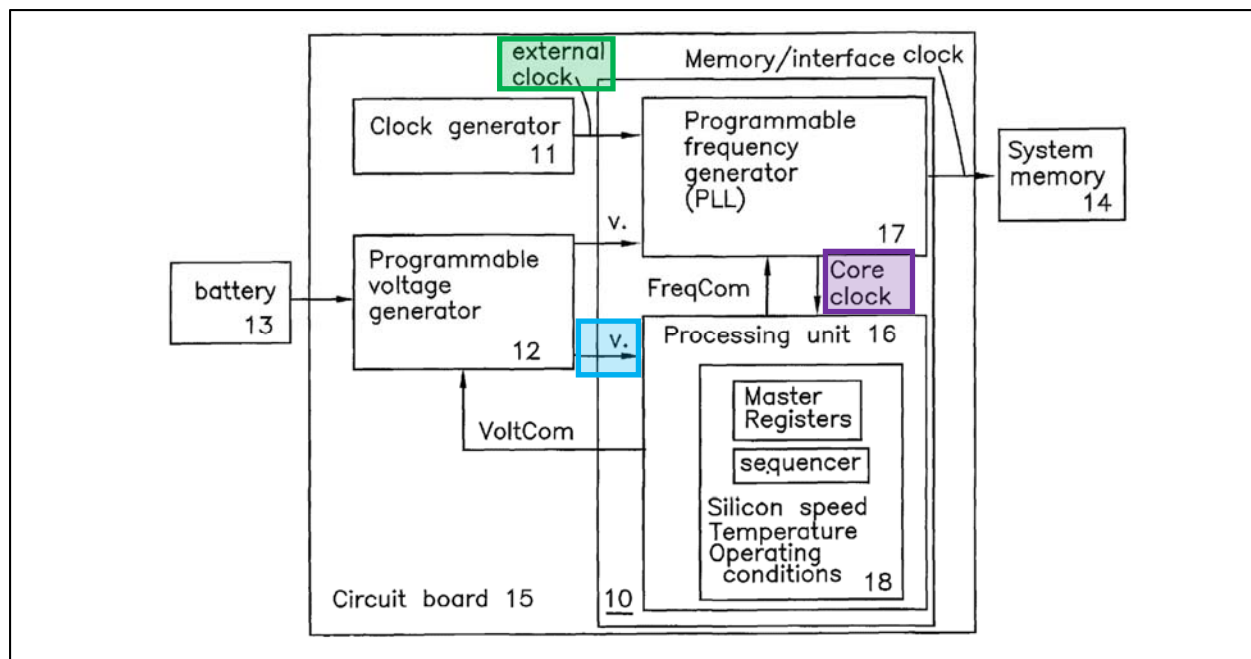
I. BACKGROUND

Plaintiff alleges infringement of four U.S. Patents: No. 7,100,061 (the “’061 Patent”), No. 7,596,708 (the “’708 Patent”), No. 8,566,627 (the “’627 Patent”), and No. 8,806,247 (the “’247 Patent”) (collectively, the “Asserted Patents”). These patents are related through a series of continuation applications and all ultimately claim priority to the application that issued as the ’061 Patent, which was filed on January 18, 2000. The ’061 Patent was subject to an *inter partes* reexamination requested on June 13, 2007 and from which a certificate issued on August 4, 2009.

The Court previously construed terms of the Asserted Patents in *Semcon IP Inc. v. Huawei Device USA Inc. et al.*, No. 2:16-cv-00437-JRG-RSP, 2017 U.S. Dist. LEXIS 108040 (E.D. Tex. July 12, 2017) (“*Huawei*”), *Semcon IP Inc. v. Amazon.com, Inc.*, No. 2:18-cv-00192-JRG, 2019 U.S. Dist. LEXIS 79846 (E.D. Tex. May 13, 2019) (“*Amazon.com*”), and *Semcon IP Inc. v. ASUSTeK Computer, Inc.*, No. 2:18-cv-00193-JRG, 2019 U.S. Dist. LEXIS 114957 (E.D. Tex. July 10, 2019) (“*ASUSTeK*”). Nearly all the terms now before the Court were construed in *Huawei*, *Amazon.com*, or *ASUSTeK*.

The Asserted Patents are generally directed to technology for managing a computer system’s power consumption by dynamically adjusting the processor’s operating frequency and voltage. The technology of the patents may be generally understood with reference to Figure 1 of the ’061 Patent, produced below and annotated by the Court. A frequency generator (17) receives an external or “slow” clock (green) and from that generates a processor or “core” clock (purple) for operating the processor’s processing unit (16). The generator (17) also provides other clocks for various system-memory and other components. ’061 Patent col.3 ll.18–26. As shown in the figure, a voltage generator (12) that is connected to a power supply (13) provides a voltage (blue) to the processor’s processing unit 16. *See id.* at col.2 ll.46–57. The processor’s power consumption and

operability are related to the voltage and core-clock frequency. *See, e.g., id.* at col.1 ll.39–47, col.7 ll.39–60.



The abstracts of the Asserted Patents are identical and provide as follows:

A method for controlling the power used by a computer including the steps of measuring the operating characteristics of a central processor of the computer, determining when the operating characteristics of the central processor are significantly different than required by the operations being conducted, and changing the operating characteristics of the central processor to a level commensurate with the operations being conducted.

Claims 1 and 17 of the '247 Patent, exemplary method and system claims respectively, provide:

1. A method, comprising:
 - determining a level of permitted power consumption by a processing device from a set of operating conditions of the processing device, with the determining the level of permitted power consumption not based upon instructions to be executed by the processing device;
 - determining a highest allowable frequency of operation of the processing device that would result in power consumption not exceeding the level of permitted power consumption;
 - determining a lowest allowable level of voltage to apply to the processing device that would allow execution of the instructions by the processing device at the highest allowable frequency; and

changing power consumption of the processing device during execution of the instructions by reducing a magnitude of a difference between an operating frequency of the processing device and the highest allowable frequency of operation of the processing device and reducing a magnitude of a difference between a voltage applied to the processing device and the lowest allowable level of voltage.

17. An apparatus, comprising:

a frequency generator configured to generate a first clock signal at a first frequency; and

a processing device configured to receive the first clock signal and a first voltage provided by a voltage source, the processing device operable to monitor operating parameters of the processing device, the processing device operable to determine a second frequency of the first clock signal and a second voltage for operation of the processing device at lower power than operation at the first frequency and the first voltage, with the processing device operable to determine the second frequency and the second voltage not based on instructions to be executed by the processing device, the processing device operable to control the frequency generator to change from generating the first clock signal at the first frequency to generating the first clock signal at a second frequency, and the processing device operable to control the voltage source to change from providing the first voltage to providing the second voltage during execution of the instructions by the processing device.

II. LEGAL PRINCIPLES

A. Claim Construction

“It is a ‘bedrock principle’ of patent law that ‘the claims of a patent define the invention to which the patentee is entitled the right to exclude.’” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) (quoting *Innova/Pure Water Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2004)). To determine the meaning of the claims, courts start by considering the intrinsic evidence. *Id.* at 1313; *C.R. Bard, Inc. v. U.S. Surgical Corp.*, 388 F.3d 858, 861 (Fed. Cir. 2004); *Bell Atl. Network Servs., Inc. v. Covad Commc’ns Group, Inc.*, 262 F.3d 1258, 1267 (Fed. Cir. 2001). The intrinsic evidence includes the claims themselves, the specification, and the prosecution history. *Phillips*, 415 F.3d at 1314; *C.R. Bard, Inc.*, 388 F.3d at 861. The general rule—subject to certain specific exceptions discussed *infra*—is that each claim

term is construed according to its ordinary and accustomed meaning as understood by one of ordinary skill in the art at the time of the invention in the context of the patent. *Phillips*, 415 F.3d at 1312–13; *Alloc, Inc. v. Int’l Trade Comm’n*, 342 F.3d 1361, 1368 (Fed. Cir. 2003); *Azure Networks, LLC v. CSR PLC*, 771 F.3d 1336, 1347 (Fed. Cir. 2014) (“There is a heavy presumption that claim terms carry their accustomed meaning in the relevant community at the relevant time.”) (vacated on other grounds).

“The claim construction inquiry ... begins and ends in all cases with the actual words of the claim.” *Renishaw PLC v. Marposs Societa’ per Azioni*, 158 F.3d 1243, 1248 (Fed. Cir. 1998). “[I]n all aspects of claim construction, ‘the name of the game is the claim.’” *Apple Inc. v. Motorola, Inc.*, 757 F.3d 1286, 1298 (Fed. Cir. 2014) (quoting *In re Hiniker Co.*, 150 F.3d 1362, 1369 (Fed. Cir. 1998)). First, a term’s context in the asserted claim can be instructive. *Phillips*, 415 F.3d at 1314. Other asserted or unasserted claims can also aid in determining the claim’s meaning, because claim terms are typically used consistently throughout the patent. *Id.* Differences among the claim terms can also assist in understanding a term’s meaning. *Id.* For example, when a dependent claim adds a limitation to an independent claim, it is presumed that the independent claim does not include the limitation. *Id.* at 1314–15.

“[C]laims ‘must be read in view of the specification, of which they are a part.’” *Id.* (quoting *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995) (en banc)). “[T]he specification ‘is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.’” *Id.* (quoting *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)); *Teleflex, Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1325 (Fed. Cir. 2002). But, “[a]lthough the specification may aid the court in interpreting the meaning of disputed claim language, particular embodiments and examples

appearing in the specification will not generally be read into the claims.’” *Comark Commc’ns, Inc. v. Harris Corp.*, 156 F.3d 1182, 1187 (Fed. Cir. 1998) (quoting *Constant v. Advanced Micro-Devices, Inc.*, 848 F.2d 1560, 1571 (Fed. Cir. 1988)); *see also Phillips*, 415 F.3d at 1323. “[I]t is improper to read limitations from a preferred embodiment described in the specification—even if it is the only embodiment—into the claims absent a clear indication in the intrinsic record that the patentee intended the claims to be so limited.” *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 913 (Fed. Cir. 2004).

The prosecution history is another tool to supply the proper context for claim construction because, like the specification, the prosecution history provides evidence of how the U.S. Patent and Trademark Office (“PTO”) and the inventor understood the patent. *Phillips*, 415 F.3d at 1317. However, “because the prosecution history represents an ongoing negotiation between the PTO and the applicant, rather than the final product of that negotiation, it often lacks the clarity of the specification and thus is less useful for claim construction purposes.” *Id.* at 1318; *see also Athletic Alternatives, Inc. v. Prince Mfg.*, 73 F.3d 1573, 1580 (Fed. Cir. 1996) (ambiguous prosecution history may be “unhelpful as an interpretive resource”).

Although extrinsic evidence can also be useful, it is “less significant than the intrinsic record in determining the legally operative meaning of claim language.” *Phillips*, 415 F.3d at 1317 (quoting *C.R. Bard, Inc.*, 388 F.3d at 862). Technical dictionaries and treatises may help a court understand the underlying technology and the manner in which one skilled in the art might use claim terms, but technical dictionaries and treatises may provide definitions that are too broad or may not be indicative of how the term is used in the patent. *Id.* at 1318. Similarly, expert testimony may aid a court in understanding the underlying technology and determining the particular meaning of a term in the pertinent field, but an expert’s conclusory, unsupported assertions as to a

term's definition are not helpful to a court. *Id.* Extrinsic evidence is “less reliable than the patent and its prosecution history in determining how to read claim terms.” *Id.* The Supreme Court recently explained the role of extrinsic evidence in claim construction:

In some cases, however, the district court will need to look beyond the patent's intrinsic evidence and to consult extrinsic evidence in order to understand, for example, the background science or the meaning of a term in the relevant art during the relevant time period. *See, e.g., Seymour v. Osborne*, 11 Wall. 516, 546 (1871) (a patent may be “so interspersed with technical terms and terms of art that the testimony of scientific witnesses is indispensable to a correct understanding of its meaning”). In cases where those subsidiary facts are in dispute, courts will need to make subsidiary factual findings about that extrinsic evidence. These are the “evidentiary underpinnings” of claim construction that we discussed in *Markman*, and this subsidiary factfinding must be reviewed for clear error on appeal.

Teva Pharm. USA, Inc. v. Sandoz, Inc., 135 S. Ct. 831, 841 (2015).

B. Departing from the Ordinary Meaning of a Claim Term

There are “only two exceptions to [the] general rule” that claim terms are construed according to their plain and ordinary meaning: “1) when a patentee sets out a definition and acts as his own lexicographer, or 2) when the patentee disavows the full scope of the claim term either in the specification or during prosecution.”² *Golden Bridge Tech., Inc. v. Apple Inc.*, 758 F.3d 1362, 1365 (Fed. Cir. 2014) (quoting *Thorner v. Sony Computer Entm't Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012)); *see also GE Lighting Solutions, LLC v. AgiLight, Inc.*, 750 F.3d 1304, 1309 (Fed. Cir. 2014) (“[T]he specification and prosecution history only compel departure from the plain meaning in two instances: lexicography and disavowal.”). The standards for finding lexicography or disavowal are “exacting.” *GE Lighting Solutions*, 750 F.3d at 1309.

² Some cases have characterized other principles of claim construction as “exceptions” to the general rule, such as the statutory requirement that a means-plus-function term is construed to cover the corresponding structure disclosed in the specification. *See, e.g., CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1367 (Fed. Cir. 2002).

To act as his own lexicographer, the patentee must “clearly set forth a definition of the disputed claim term,” and “clearly express an intent to define the term.” *Id.* (quoting *Thorner*, 669 F.3d at 1365); *see also Renishaw*, 158 F.3d at 1249. The patentee’s lexicography must appear “with reasonable clarity, deliberateness, and precision.” *Renishaw*, 158 F.3d at 1249.

To disavow or disclaim the full scope of a claim term, the patentee’s statements in the specification or prosecution history must amount to a “clear and unmistakable” surrender. *Cordis Corp. v. Boston Sci. Corp.*, 561 F.3d 1319, 1329 (Fed. Cir. 2009); *see also Thorner*, 669 F.3d at 1366 (“The patentee may demonstrate intent to deviate from the ordinary and accustomed meaning of a claim term by including in the specification expressions of manifest exclusion or restriction, representing a clear disavowal of claim scope.”). “Where an applicant’s statements are amenable to multiple reasonable interpretations, they cannot be deemed clear and unmistakable.” *3M Innovative Props. Co. v. Tredegar Corp.*, 725 F.3d 1315, 1326 (Fed. Cir. 2013).

C. Definiteness Under 35 U.S.C. § 112, ¶ 2 (pre-AIA) / § 112(b) (AIA)³

Patent claims must particularly point out and distinctly claim the subject matter regarded as the invention. 35 U.S.C. § 112, ¶ 2. A claim, when viewed in light of the intrinsic evidence, must “inform those skilled in the art about the scope of the invention with reasonable certainty.” *Nautilus Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 910 (2014). If it does not, the claim fails § 112, ¶ 2 and is therefore invalid as indefinite. *Id.* at 901. Whether a claim is indefinite is determined from the perspective of one of ordinary skill in the art as of the time the application for the patent was filed. *Id.* at 911. As it is a challenge to the validity of a patent, the failure of any claim in suit to comply with § 112 must be shown by clear and convincing evidence. *BASF Corp. v. Johnson*

³ The Court refers to the pre-AIA version of § 112 but understands that there is no substantial difference between definiteness under the pre-AIA version and under the AIA version of the statute.

Matthey Inc., 875 F.3d 1360, 1365 (Fed. Cir. 2017). “[I]ndefiniteness is a question of law and in effect part of claim construction.” *ePlus, Inc. v. Lawson Software, Inc.*, 700 F.3d 509, 517 (Fed. Cir. 2012).

When a term of degree is used in a claim, “the court must determine whether the patent provides some standard for measuring that degree.” *Biosig Instruments, Inc. v. Nautilus, Inc.*, 783 F.3d 1374, 1378 (Fed. Cir. 2015) (quotation marks omitted). Likewise, when a subjective term is used in a claim, “the court must determine whether the patent’s specification supplies some standard for measuring the scope of the [term].” *Datamize, LLC v. Plumtree Software, Inc.*, 417 F.3d 1342, 1351 (Fed. Cir. 2005). The standard “must provide objective boundaries for those of skill in the art.” *Interval Licensing LLC v. AOL, Inc.*, 766 F.3d 1364, 1371 (Fed. Cir. 2014).

III. AGREED CONSTRUCTIONS

The Parties have agreed to the following constructions set forth in their Joint Claim Construction Chart (Dkt. No. 57).⁴

Term ⁵	Agreed Construction
“programmable voltage supply” <ul style="list-style-type: none"> • ’247 Patent Claim 5 	power supply configured to provide one of a plurality of distinct voltage levels specified by an input
“a selectable voltage” <ul style="list-style-type: none"> • ’627 Patent Claim 5 	one of a plurality of distinct voltage levels specified by an input
“a power supply furnishing selectable output voltages” <ul style="list-style-type: none"> • ’061 Patent Claim 56 	a power supply providing one of a plurality of distinct voltage levels corresponding to an input

⁴ The Parties submitted two charts under the Court’s Patent Rule 4-5(d). The first was submitted on July 12, 2019 as Dkt. No. 54. A second chart, updated to reflect a reduction in asserted claims and terms in dispute, was filed on July 25, 2019 as Dkt. No. 57.

⁵ For all term charts in this order, the terms in dispute are identified either by reference to the appendix to the Parties’ Joint Claim Construction Chart (Dkt. No. 57) or by listing the claims in which the term appears, but (1) only the highest-level claim in each dependency chain is listed, and (2) only asserted claims identified in the Parties’ Joint Claim Construction Chart are listed.

Term⁵	Agreed Construction
“power supply ... configured to furnish a selectable voltage” <ul style="list-style-type: none"> • ’627 Patent Claim 5 	a power supply configured to provide one of a plurality of distinct voltage levels specified by an input
“idle time” <ul style="list-style-type: none"> • ’061 Patent Claim 23 	time spent in an idle state
“idle state(s)” <ul style="list-style-type: none"> • ’061 Patent Claims 31, 33 	state in which various components of the system are quiescent
“plurality of idle states of said computer processor” <ul style="list-style-type: none"> • ’061 Patent Claim 30 	
“halt state” <ul style="list-style-type: none"> • ’061 Patent Claim 33 	state in which the core clock has been stopped but the processor responds to most interrupts
“concurrently furnish clock signals at different frequencies” <ul style="list-style-type: none"> • ’627 Patent Claim 10 	simultaneously furnishing more than one distinct frequency at the same time

Having reviewed the intrinsic and extrinsic evidence of record, the Court hereby adopts the Parties’ agreed constructions.

IV. CONSTRUCTION OF DISPUTED TERMS

A. “computer processor,” “processor,” “central processor,” “processing unit,” and “processing device”

Disputed Term	Plaintiff’s Proposed Construction	Defendant’s Proposed Construction
“computer processor” / “processor” <ul style="list-style-type: none"> • Dkt. No. 57-1 at 1, No. 2⁶ 	CPU	CPU. Each core of a multi-core processor is a CPU.

⁶ Numerous claims of the ’061 Patent include the term “central processor.” Though the ’061 Patent was broadly identified in the Parties’ P.R. 4-5(d) chart, no claim language was provided with the disputed terms in bold type, as required by P.R. 4-5(d). The Court understands that the Parties’ arguments and proposed constructions of “processor” and “computer processor” apply to “central processor.”

Disputed Term	Plaintiff's Proposed Construction	Defendant's Proposed Construction
“processing unit” / “processing device” <ul style="list-style-type: none"> Dkt. No. 57-1 at 1, No. 3 	computing portion of CPU	Computing portion of CPU. Each core of a multi-core processor is a CPU.

Because the Parties’ arguments and proposed constructions with respect to these terms are related, the Court addresses the terms together.

The Parties’ Positions

Plaintiff submits: Defendant’s proposed construction is a construction of “multi-core processor,” which does not appear in the claims. Whether a core of a multi-core processor is a CPU is a factual issue of infringement rather than of claim construction. Dkt. No. 46 at 8–9.

Defendant responds: As used in the Asserted Patents, the terms “computer processor,” “processor,” and “central processor” refer to a CPU and each core in a multi-core processor is a CPU. References in the claims to “the” or “said” processor refer to the CPU, rather than to a component that contains the CPU, such as a multi-core processor. Dkt. No. 48 at 6–10.

In addition to the claims themselves, Defendant cites the following intrinsic and extrinsic evidence to support its position: **Intrinsic evidence:** ’061 Patent fig.1. **Extrinsic evidence:** Diefendorff, *Power4 Focuses on Memory Bandwidth: IBM Confronts IA-64, Says ISA Not Important*, Microdesign Resources: Microprocessor Report (Oct. 6, 1999) (Defendant’s Ex. A, Dkt. No. 48-2); L. Hammond, *The Stanford Hydra CMP*, IEEE MICRO (2000) (Defendant’s Ex. B, Dkt. No. 48-3); Carbonell Decl.⁷ ¶¶ 34–35 (Plaintiff’s Ex. E, Dkt. No. 46-6).

⁷ Declaration of Jaime G. Carbonell, Ph.D. Regarding Proposed Constructions and Definiteness of the Asserted Claims of U.S. Patent Nos. 7,100,061, 7,596,708, 8,566,627, and 8,806,247 (April 30, 2019).

Plaintiff replies: The stated purpose of Defendant’s proposed construction is to decide as a matter of claim construction an issue of infringement. Dkt. No. 52 at 5.

Analysis

The issue in dispute distills to whether the Court should construe “multi-core processor.” Given that “multi-core processor” is not a term in the Asserted Patents, the Court declines at this stage to rule on whether any claim reads on a multi-core processor.

This is substantially the same dispute as before the Court in *Amazon.com*. 2019 U.S. Dist. LEXIS 79846, at *18–21. Accordingly, and as explained in *Huawei*,⁸ *Amazon.com*,⁹ and *ASUSTeK*,¹⁰ the Court construes the terms as follows:

- “computer processor” means “CPU”;
- “processor” means “CPU”;
- “processing unit” means “computing portion of CPU”; and
- “processing device” means “computing portion of CPU.”

B. The Determining Terms

Disputed Term	Plaintiff’s Proposed Construction	Defendant’s Proposed Construction
“determining ...” / “determines ...” / “determination ...” • Dkt. No. 57-1 at 1–6, Nos. 4–36	plain and ordinary meaning	indefinite

Because the Parties’ arguments and proposed constructions with respect to these terms are related, the Court addresses the terms together.

⁸ *Huawei*, 2017 U.S. Dist. LEXIS 108040, at *17–26.

⁹ *Amazon.com*, 2019 U.S. Dist. LEXIS 79846, at *18–21.

¹⁰ *ASUSTeK*, 2019 U.S. Dist. LEXIS 114957, at *13–22.

The Parties' Positions

Plaintiff submits: One of ordinary skill in the art that would understand that something may be determined in a variety of ways, such as through an equation or lookup table. There is nothing indefinite about the Determining terms. Dkt. No. 46 at 9–10.

In addition to the claims themselves, Plaintiff cites the following intrinsic and extrinsic evidence to support its position: **Intrinsic evidence:** '061 Patent col.1 ll.42–45, col.5 ll.63–66. **Extrinsic evidence:** Carbonell Decl. ¶¶ 37–41 (Plaintiff's Ex. E, Dkt. No. 46-6).

Defendant responds: There are many ways by which something may be determined, such as through a random-number generator or throwing darts. One of ordinary skill in the art would not understand what types of determining are encompassed by the claims and what inputs and outputs are associated with the determining. Thus, the claims are indefinite. Dkt. No. 48 at 10–13.

In addition to the claims themselves, Defendant cites the following **intrinsic evidence** to support its position: '061 Patent col.3 ll.49–52, col.4 ll.12–20.

Plaintiff replies: Defendant's concerns are properly issues of enablement, rather than indefiniteness. Dkt. No. 52 at 5–6.

Analysis

As in *Amazon.com*, the issue in dispute distills to whether the Asserted Patents must provide algorithms for the various “determining” functions recited in the claims for the claims to be definite. They do not.

This is substantially the same dispute as before the Court in *Amazon.com*. 2019 U.S. Dist. LEXIS 79846, at *69–71. Accordingly, and as explained in *Amazon.com*, the Court holds that Defendant has not proven any claim indefinite by reason of including a Determining Term and

determines that these terms have their plain and ordinary meanings without the need for further construction.

C. The Executing-Instructions-While-Changing-the-Voltage-Terms

Disputed Term	Plaintiff's Proposed Construction	Defendant's Proposed Construction
<ul style="list-style-type: none">• Dkt. No. 57-1 at 6, 10–11, Nos. 37, 59, 60	plain and ordinary meaning	the [processor / processing unit] does not stop the core clock to the [processor / processing unit] and continues execution of instructions in the period of time that the voltage is changing

Because the Parties' arguments and proposed constructions with respect to these terms are related, the Court addresses the terms together.

The Parties' Positions

Plaintiff submits: It stands on, and incorporates, the briefing submitted in *Amazon.com*. Dkt. No. 46 at 10.

Defendant responds: These terms should be construed to clarify that while the voltage is changing, the core clock continues to operate. This is how the patent applicant described the invention and this is how the patent examiner understood the invention. Dkt. No. 48 at 13–15.

In addition to the claims themselves, Defendant cites the following **intrinsic evidence** to support its position: '061 Patent File Wrapper August 3, 2004 Amendment and Response at 16–17 (Defendant's Ex. D, Dkt. No. 48-5 at 17–18), September 15, 2005 Reasons for Allowance at 2 (Defendant's Ex. C, Dkt. No. 48-4 at 6), March 6, 2006 Reasons for Allowance at 2 (Defendant's Ex. E, Dkt. No. 48-6 at 6).

Plaintiff replies: Defendant's proposed construction improperly requires the core clock to be operational at all times during a voltage change and should therefore be rejected. Dkt. No. 52 at 6–7.

Analysis

There appear to be two issues in dispute. First, whether the claimed execution of instructions during a voltage change necessarily requires operation of the “core clock.” It does. Second, whether this clock must continue operating at all times during a recited voltage change. The claims plainly recite that instructions are executed during the voltage change or that the processor is enabled to execute instructions during the voltage change. This means that the clock is necessarily operational at least at some point during the voltage change. But the terms in dispute here do not necessarily require that the clock is operational at all times during the voltage change

These issues were before the Court in *Huawei* and *Amazon.com*. *Huawei*, 2017 U.S. Dist. LEXIS 108040, at *35–40; *Amazon.com*, 2019 U.S. Dist. LEXIS 79846, at *21–29. Accordingly, and as explained in *Huawei* and *Amazon.com*, the Court rejects the continuous-operation limitation proposed by Defendant and construes these voltage-change terms by construing “executing instructions” and variants in those terms in the claims at issue as follows:

- “executing ... instructions” means “executing ... instructions using the core clock”;
- “execution of ... instructions” means “execution of ... instructions using the core clock”;
- “execute instructions” means “execute instructions using the core clock”; and
- “executes ... instructions” means “executes ... instructions using the core clock.”

D. The Operating-Conditions Terms

Disputed Term	Plaintiff's Proposed Construction	Defendant's Proposed Construction
<ul style="list-style-type: none">Dkt. No. 57-1 at 6, No. 38	plain and ordinary meaning	the present frequency and voltage of operation of the processor, the temperature of operation of the processor, or the amount of time the processor spends in one of what may be a number of idle states

Because the Parties' arguments and proposed constructions with respect to these terms are related, the Court addresses the terms together.

The Parties' Positions

Plaintiff submits: The Asserted Patents list exemplary operating conditions, but the claimed operating conditions should not be limited to these exemplary conditions. And while the "instructions to be executed by the processor" are explicitly excluded from certain claimed operating conditions in certain claims, these instructions are listed as an exemplary condition in the patents and should not be excluded from all claimed operating conditions. Dkt. No. 46 at 11–12.

In addition to the claims themselves, Plaintiff cites the following intrinsic and extrinsic evidence to support its position: **Intrinsic evidence:** '061 Patent col.3 ll.9–12, col.5 ll.21–29. **Extrinsic evidence:** Carbonell Decl. ¶¶ 47–50 (Plaintiff's Ex. E, Dkt. No. 46-6).

Defendant responds: During reexamination of the '061 Patent, the patentee disclaimed "instructions to be executed by the processor" from the scope of "operating conditions" by amending claim limitations directed to "determining ... from operating conditions of the processor" to also include "said determination is made independently of instructions to be executed by the processor." Dkt. No. 48 at 15–17

In addition to the claims themselves, Defendant cites the following **intrinsic evidence** to support its position: '061 Patent col.2 1.67 – col.3 1.12; '061 Patent File Wrapper September 8, 2008 Reply to Action Closing Prosecution in *Inter Partes* Reexamination at 2 (Defendant's Ex. F, Dkt. No. 48-7 at 3).

Plaintiff replies: If “instructions to be executed by the processor” were not understood to be part of “operating conditions” there would be no need to expressly specify when those instructions are not part of the operating conditions that certain “determining” steps utilize. Dkt. No. 52 at 7.

Analysis

There are two issues in dispute. First, whether the recited operating “conditions,” “characteristics,” and “parameters” of the processor are limited to those listed in the Asserted Patents. They are not. Second, whether the recited operating “conditions,” “characteristics,” and “parameters” of the processor necessarily excludes “instructions to be executed by the processor.” They do not.

This is substantially the same dispute as before the Court in *Amazon.com*. 2019 U.S. Dist. LEXIS 79846, at *42–47. Accordingly, and as explained in *Amazon.com*, the Court rejects Defendant's proposal to limit the terms to “the present frequency and voltage of operation of the processor, the temperature of operation of the processor, or the amount of time the processor spends in one of what may be a number of idle states” and holds that the terms have their plain and ordinary meanings without the need for further construction.

E. “a counter”

Disputed Term	Plaintiff's Proposed Construction	Defendant's Proposed Construction
“a counter” <ul style="list-style-type: none"> '627 Patent Claims 1, 10, 16 	plain and ordinary meaning	a device that counts to a predetermined time

The Parties' Positions

Plaintiff submits: As held in *Huawei* and *Amazon.com*, a counter is not limited to a “device” or to something which “counts to a predetermined time.” Dkt. No. 46 at 12.

In addition to the claims themselves, Plaintiff cites the following **extrinsic evidence** to support its position: Carbonell Decl. ¶¶ 52–53 (Plaintiff’s Ex. E, Dkt. No. 46-6).

Defendant responds: The “counter” of the Asserted Patents must count to a predetermined time. For example, Claims 1, 10, and 16 of the ’627 Patent expressly require that when the counter reaches a “specified value” clocks are turned on. That is, the counters necessarily count to a specific value, the “specified value.” And this value is described in the patents as a predetermined time. This is distinct from a counter that counts random events or “angels dancing on the head of a pin.” In fact, the claims were allowed because they were amended to add “counter” and because that counter is for determining an amount of time. Dkt. No. 48 at 17–18.

In addition to the claims themselves, Defendant cites the following **intrinsic evidence** to support its position: ’627 Patent figs.2, 4, col.5 ll.6–8, 6:63 – 7:2; ’627 Patent File Wrapper November 7, 2012 Response at 2–8 (Defendant’s Ex. G, Dkt. No. 48-8 at 3–9), November 23, 2012 Reasons for Allowance at 2 (Defendant’s Ex. H, Dkt. No. 48-9 at 7).

Plaintiff replies: The claims do not require the counter to count to a predetermined time. Rather, the claims state that when the counter reaches a predetermined value, an event is triggered. Claim 10 is tied to a time, the others are not. Dkt. No. 52 at 7.

Analysis

The main issue in dispute is whether the counter of the Asserted Patents necessarily counts to a predetermined time. It does not.

This issue was before the Court in *Amazon.com*. 2019 U.S. Dist. LEXIS 79846, at *47–52.

Accordingly, and as explained in *Amazon.com*, the Court construes “counter” as follows:

- “counter” means “hardware or software that counts.”

F. “clock frequency source,” “clock generator,” “clock frequency generator,” “programmable frequency generator,” and “frequency generator”

Disputed Term	Plaintiff’s Proposed Construction	Defendant’s Proposed Construction
“clock frequency source” <ul style="list-style-type: none">• ’061 Patent Claim 56	plain and ordinary meaning	a unit that provides an external clock signal to the processor
“clock generator” <ul style="list-style-type: none">• ’627 Patent Claim 1, 10• ’247 Patent Claims 3, 21	plain and ordinary meaning	a unit that provides an external clock signal to the processor
“clock frequency generator” <ul style="list-style-type: none">• ’061 Patent Claim 56	plain and ordinary meaning	a unit within the processor that generates clock frequencies
“programmable frequency generator” <ul style="list-style-type: none">• ’708 Patent Claims 23, 26	plain and ordinary meaning	a unit within the processor that generates clock frequencies
“frequency generator” <ul style="list-style-type: none">• ’627 Patent Claims 1, 10• ’247 Patent Claims 2, 10, 17	plain and ordinary meaning	a unit within the processor that generates clock frequencies

Because the Parties’ arguments and proposed constructions with respect to these terms are related, the Court addresses the terms together.

The Parties’ Positions

Plaintiff submits: With respect to “clock frequency generator,” “programmable frequency generator,” and “frequency generator,” the Parties have agreed to rest on the briefing and argument offered in *Amazon.com*. With respect to “clock frequency source” and “clock generator,” these are

not necessarily external to the processor. Construing these to include an “external” limitation would improperly import limitations from embodiments described in the Asserted Patents. Dkt. No. 46 at 13–14.

In addition to the claims themselves, Plaintiff cites the following **extrinsic evidence** to support its position: Carbonell Decl. ¶ 57 (Plaintiff’s Ex. E, Dkt. No. 46-6).

Defendant responds: With respect to “clock frequency generator,” “programmable frequency generator,” and “frequency generator,” the Parties have agreed to rest on the briefing and argument offered in *Amazon.com*. With respect to “clock frequency source” and “clock generator,” these correspond to the clock generator in the described embodiments that is uniformly described as external to the processor. There are no described embodiments in which the clock generator is within the processor. Dkt. No. 48 at 18–19.

In addition to the claims themselves, Defendant cites the following **intrinsic evidence** to support its position: ’061 Patent fig.1, col.3 ll.18–20.

Plaintiff replies: Defendant’s sole argument to require the “clock frequency source” and “clock generator” to be external to the processor is that the embodiment depicted in Figure 1 of the Asserted Patents has an external clock generator. This is not a sufficient reason to limit the terms to a source/generator that is external to the processor. Dkt. No. 52 at 8.

Analysis

There are two main issues in dispute, both related to the location of the particular source/generator. First, as presented by the Parties in *Amazon.com*, whether the frequency generator of the claims is necessarily on the same chip as the processor. It is. Second, whether the clock generator of the claims is necessarily external to the processor. It is not.

These issues were before the Court in *Amazon.com*. 2019 U.S. Dist. LEXIS 79846, at *52–61. Accordingly, and as explained in *Amazon.com*, the Court rejects Defendant’s “external” construction for “clock frequency source” and “clock generator,” determines those terms have their plain and ordinary meaning without the need for construction, and construes the frequency-generator terms as follows:

- “clock frequency generator” means “clock frequency generator on the same chip as the processor”;
- “programmable frequency generator” means “programmable frequency generator on the same chip as the processor”; and
- “frequency generator” means “frequency generator on the same chip as the processor.”

G. “a voltage source”

Disputed Term	Plaintiff’s Proposed Construction	Defendant’s Proposed Construction
“a voltage source” <ul style="list-style-type: none"> • ’247 Patent Claims 10, 17 	plain and ordinary meaning	power supply configured to provide one of a plurality of distinct voltage levels specified by an input

The Parties’ Positions

Plaintiff submits: Some claims expressly recite that the “voltage source includes a power supply”; thus, a voltage source is not necessarily a power supply nor does it necessarily include a power supply. In fact, Figure 1 of the Asserted Patents depicts the voltage source and the power supply as distinct components. Dkt. No. 46 at 14–15.

In addition to the claims themselves, Plaintiff cites the following **intrinsic evidence** to support its position: ’061 Patent fig.1.

Defendant responds: In *Huawei*, the Court construed “voltage source includes a programmable voltage supply” as “voltage source includes a power supply configured to provide one of a plurality of distinct voltage levels specified by an input” indicating that a voltage source at least includes a power supply. In fact, Plaintiff has not explained what a voltage source that does not include a power supply would be. Further, Claims 10 and 17 of the ’247 Patent have a voltage source that is controlled to provide two voltage levels and “voltage source” should be construed to clarify that the voltage levels are distinct and that the control is effected by specifying an input, as described in the patent. Dkt. No. 48 at 19–21.

In addition to the claims themselves, Defendant cites the following **intrinsic evidence** to support its position: ’257 Patent col.2 ll.63–65, col.6 ll.12–16.

Plaintiff replies: The Asserted Patents describe that “voltage source” and “power supply” are distinct concepts and there is no reason to limit a “voltage source” to one that has an output specified by an input. Dkt. No. 52 at 8.

Analysis

There are two issues in dispute. First, whether a “voltage source” is necessarily a “power supply.” It is not. Second, whether a voltage source is necessarily “configured to provide one of a plurality of distinct voltage levels specified by an input.” It is not.

This is substantially the same dispute as before the Court in *Amazon.com*. 2019 U.S. Dist. LEXIS 79846, at *61–66. Accordingly, and as explained in *Amazon.com*, the Court rejects Defendant’s proposal to limit a voltage source to a “power supply configured to provide one of a plurality of distinct voltage levels specified by an input” and determines that “voltage source” has its plain and ordinary meaning without the need for further construction.

H. The Causing-a-Change-in-Voltage Terms

Disputed Term	Plaintiff's Proposed Construction	Defendant's Proposed Construction
causing a change in its voltage <ul style="list-style-type: none">'061 Patent Claim 1	plain and ordinary meaning	the voltage generator changes the voltage furnished by the voltage generator to the determined voltage level as a result of a specified input
causing the voltage at which said computer processor is operated to change <ul style="list-style-type: none">'061 Patent Claims 15, 23, 30		
causing a change in the voltage at which said computer processor is operated <ul style="list-style-type: none">'061 Patent Claim 39		
to cause the power supply to cause voltage furnished to the central processor to change while the central processor is executing instructions <ul style="list-style-type: none">'061 Patent Claim 56		
“changing a level of voltage” <ul style="list-style-type: none">'627 Patent Claim 16	plain and ordinary meaning	commanding the voltage generator to change the voltage furnished by the voltage generator to the determined voltage level

Because the Parties' arguments and proposed constructions with respect to these terms are related, the Court addresses the terms together.

The Parties' Positions

Plaintiff submits: The plain meaning of “causing a change in ... voltage,” and variants, requires neither a “voltage generator” nor changing the voltage to a “determined voltage level.” Dkt. No. 46 at 15–16.

In addition to the claims themselves, Plaintiff cites the following **extrinsic evidence** to support its position: Carbonell Decl. ¶¶ 58–59 (Plaintiff’s Ex. E, Dkt. No. 46-6).

Defendant responds: Causing a change in voltage, as described and claimed in the ’061 Patent, requires a controlled and purposeful change as opposed to random voltage fluctuations. Thus, and as described in the patent, causing a voltage change requires a voltage generator that provides a determined voltage based on an input. Dkt. No. 48 at 22–23.

In addition to the claims themselves, Defendant cites the following **intrinsic evidence** to support its position: ’061 Patent fig.1, col.2 ll.46–60, col.6 ll.2–15, col.6 ll.30–36, col.7 ll.32–34.

Plaintiff replies: As the Court explained in *Amazon.com*, the ’061 Patent provides several structures other than a “voltage generator” for providing a voltage. Also, as explained in *Amazon.com*, random voltage changes are not within the scope of these terms. Dkt. No. 52 at 9.

Analysis

There are two issues in dispute. First, whether causing a voltage change necessarily requires changing the voltage to a determined level as a result of a specified input. It does not. Second, whether causing a voltage change necessarily requires a voltage generator. It does not.

This is substantially the same dispute as before the Court in *Amazon.com*. 2019 U.S. Dist. LEXIS 79846, at *66–69. Accordingly, and as explained in *Amazon.com*, the Court rejects Defendant’s request to read in the limitations of “voltage generator changes the voltage furnished by the voltage generator to the determined voltage level as a result of a specified input” and determines that the causing-a-change-in-voltage terms have their plain and ordinary meaning without the need for further construction.

I. The Changing-the-Frequency-While-Execution-of-Instructions-is-Stopped Terms

Disputed Term	Plaintiff's Proposed Construction	Defendant's Proposed Construction
changing an operating frequency at which said processor is operated ... while execution of instructions by said processor is stopped • '708 Patent Claims 1, 51	plain and ordinary meaning	the [processor / processing unit] stops the core clock to the [processor / processing unit] and does not execute instructions for the time that the frequency is changing
while instruction execution is stopped, adjusting said programmable frequency generator to change the frequency of said processing unit • '708 Patent Claim 23		
while instruction execution is disabled, adjusting said programmable frequency generator to change the frequency of said processing unit • '708 Patent Claim 26		
in response to initiating [a/said] change in frequency ... shut down clocks to said processing unit and said second component • '627 Patent Claims 1, 10		
in response to initiation of a change in frequency for said processing unit ... stopping said first and second clock signals • '627 Patent Claim 16		

Because the Parties' arguments and proposed constructions with respect to these terms are related, the Court addresses the terms together.

The Parties' Positions

Plaintiff submits: It stands on, and incorporates, the briefing submitted in *Amazon.com*. Dkt. No. 46 at 16–17.

Defendant responds: These terms require not only that the core clock is shut down, but that the processor does not execute instructions during the frequency change. This is explained in the Asserted Patents and during prosecution of the '708 and '627 Patents. Dkt. No. 48 at 24–25.

In addition to the claims themselves, Defendant cites the following **intrinsic evidence** to support its position: '708 Patent col.6 ll.26–67; '708 Patent File Wrapper June 29, 2007 Amendment and Response at 12 (Defendant's Ex. I, Dkt. No. 48-10 at 13); '627 Patent File Wrapper November 7, 2012 Response at 11 (Defendant's Ex. G, Dkt. No. 48-8 at 12).

Plaintiff replies: The claims are open ended, therefore changing frequency while execution of instructions is not stopped is not precluded. Dkt. No. 52 at 10.

Analysis

Given the Parties' references to *Amazon.com*, there appear to be three issues in dispute. First, whether stopping execution of instructions during a frequency change necessarily means stopping the core clock. It does not. Second, whether the "clock" that is expressly stopped according to the claims is necessarily the core clock. It is. Third, whether the clock / execution of instructions is necessarily stopped for the entire time the frequency is changed. It is not.

This is substantially the same dispute as before the Court in *Amazon.com*. 2019 U.S. Dist. LEXIS 79846, at *29–35. Accordingly, and as explained in *Amazon.com*, the Court rejects Defendant's proposals to limit the claims to require stopping the core clock in order to stop execution of instructions and to require that the execution and clock are stopped for all frequency changes. For the terms that do not include the term "clock," the Court holds those terms to have their plain and ordinary meaning without the need for further construction. For the clock terms at issue in the claims of the '627 Patent identified by the Parties, the Court construes the terms as follows to clarify that stopping the clocks involves stopping the core clock:

- “in response to initiating [a/said] change in frequency ... shut down clocks to said processing unit and said second component” means “in response to initiating [a/said] change in frequency ... shut down clocks, including the core clock, to said processing unit and said second component”; and
- “in response to initiation of a change in frequency for said processing unit ... stopping said first and second clock signals” means “in response to initiation of a change in frequency for said processing unit ... stopping said first and second clock signals, including the core clock.”

J. “level of permitted power”

Disputed Term	Plaintiff’s Proposed Construction	Defendant’s Proposed Construction
“level of permitted power” <ul style="list-style-type: none"> • ’247 Patent Claim 1 	plain and ordinary meaning	indefinite

The Parties’ Positions

Plaintiff submits: As the Court held in *Huawei* and *Amazon.com*, the meaning of “level of permitted power” is reasonably certain. In the context of “determining a level of permitted power consumption” (as claimed), the permitted power consumption is “a function of user-setting and device-limit parameters” and whether such is determined is objectively determinable. Dkt. No. 46 at 19.

In addition to the claims themselves, Plaintiff cites the following **extrinsic evidence** to support its position: Carbonell Decl. ¶¶ 73–76 (Plaintiff’s Ex. E, Dkt. No. 46-6).

Defendant responds: Because what level of power consumption is permitted varies from processor engineer to processor engineer, the meaning of this term is not reasonably certain.

Further, while determining a power level based on user settings may be objective, what settings are permitted is subjective. Dkt. No. 48 at 26–27.

In addition to the claims themselves, Defendant cites the following **intrinsic evidence** to support its position: '708 Patent col.7 ll.32–52.

Plaintiff replies: As explained in the '247 Patent, the permitted power is different for different circumstances, and one of ordinary skill in the art would know how to calculate the permitted power level depending on the circumstances. Dkt. No. 52 at 11.

Plaintiff cites further intrinsic and extrinsic evidence to support its position: **Intrinsic evidence:** '247 Patent col.7 ll.57–61. **Extrinsic evidence:** Carbonell Decl. ¶¶ 39–41 (Plaintiff's Ex. E, Dkt. No. 46-6).

Analysis

The issue in dispute is whether the meaning of “level of permitted power” of a processor is reasonably certain to one of ordinary skill in the art. It is.

This issue was before the Court in *Huawei* and *Amazon.com*. *Huawei*, 2017 U.S. Dist. LEXIS 108040, at *31–34; *Amazon.com*, 2019 U.S. Dist. LEXIS 79846, at *76–78. Accordingly, and for the reasons set forth in *Huawei* and *Amazon.com*, the Court holds that Defendant has failed to prove that any claim is indefinite for including “level of permitted power” and determines the term has its plain and ordinary meaning without the need for further construction.

K. “... is not capable of functioning ...” and “... can not function ...”

Disputed Term	Plaintiff's Proposed Construction	Defendant's Proposed Construction
“where said processor is not capable of functioning at said first frequency and said second voltage” • '708 Patent Claim 1, 23	plain and ordinary meaning	indefinite

Disputed Term	Plaintiff's Proposed Construction	Defendant's Proposed Construction
“where said processing unit can not function at said first frequency and said second voltage” <ul style="list-style-type: none"> • ’708 Patent Claim 23 		
“where said processing unit can not function at said second frequency and said first voltage” <ul style="list-style-type: none"> • ’708 Patent Claim 26 	plain and ordinary meaning	indefinite
“where said processor is not capable of functioning at said second frequency and said first voltage” <ul style="list-style-type: none"> • ’708 Patent Claim 51 		

Because the Parties’ arguments and proposed constructions with respect to these terms are related, the Court addresses the terms together.

The Parties’ Positions

Plaintiff submits: As known in the art, “[w]hen operating above certain frequency thresholds and/or below certain voltage thresholds, processors will cease to function.” That standard values for operating voltage and frequency are provided in a processor’s data sheet. Whether a particular processor is able to function at a certain voltage-frequency setting is a factual matter. Dkt. No. 46 at 20.

In addition to the claims themselves, Plaintiff cites the following **extrinsic evidence** to support its position: Carbonell Decl. ¶¶ 77–79 (Plaintiff’s Ex. E, Dkt. No. 46-6).

Defendant responds: The Asserted Patents provide no examples of what it means for a processor to be incapable of functioning or even what level of dysfunction rises to not functioning. And while data sheets may provide operating settings, they provide only recommended settings. Further, data sheets are not mentioned in the ’708 Patent. Thus, whether a processor is incapable

of functioning is a purely subjective issue and these terms render claims indefinite. Dkt. No. 48 at 27–28.

In addition to the claims themselves, Defendant cites the following **intrinsic evidence** to support its position: ’708 Patent figs.2, 4, col.4 ll.58 – col.5 l.18, col.5 l.42 – col.7 l.24, col.7 ll.32–52.

Plaintiff replies: As explained by its expert witness, a processor is not able to function at a particular frequency unless a sufficient voltage is supplied. Dkt. No. 52 at 11–12.

Plaintiff cites further **extrinsic evidence** to support its position: Carbonell Decl. ¶¶ 39–41, p.29 (Plaintiff’s Ex. E, Dkt. No. 46-6).

Analysis

The issue in dispute is whether what it means that a processor is not capable of functioning or cannot function is reasonably certain to one of ordinary skill in the art. It is.

This is substantially the same dispute as before the Court in *Amazon.com*. 2019 U.S. Dist. LEXIS 79846, at *78–82. Accordingly, and for the reasons set forth in *Amazon.com*, the Court holds that Defendant has not proven any claim is indefinite for including “is not capable of functioning” or “can not function” and determines that these terms have their plain and ordinary meaning without the need for further construction.

L. The Monitoring Terms

Disputed Term	Plaintiff’s Proposed Construction	Defendant’s Proposed Construction
“monitoring” / “monitor” / “monitor” • Dkt. No. 57-1 at 10, No. 57	plain and ordinary meaning	continually measuring the condition of a parameter

Because the Parties' arguments and proposed constructions with respect to these terms are related, the Court addresses the terms together.

The Parties' Positions

Plaintiff submits: Monitoring a condition or a parameter is not necessarily continuous in nature nor does it necessarily require measuring. For example, as is known in the art, monitoring may be accomplished by reading a value on regular intervals (continuously) or only when certain conditions are met or on an interrupt. Also, as is known in the art, monitoring may be based simply on receiving information without making a measurement. Dkt. No. 46 at 21–22.

In addition to the claims themselves, Plaintiff cites the following intrinsic and extrinsic evidence to support its position: **Intrinsic evidence:** '061 Patent col.3 ll.1–2. **Extrinsic evidence:** Carbonell Decl. ¶¶ 81–82 (Plaintiff's Ex. E, Dkt. No. 46-6).

Defendant responds: The Asserted Patents are directed to managing processor power consumption by dynamically adjusting the processor's frequency and voltage, and doing so necessarily requires continuous monitoring of certain operating conditions. Further, monitoring a parameter, condition, or characteristic necessarily requires measuring the condition of that parameter, condition, or characteristic. Dkt. No. 48 at 28–30.

Plaintiff replies: There is no intrinsic or extrinsic evidence of record that establishes that monitoring necessarily requires continuous measurement. Rather, the unrebutted expert testimony is that monitoring is not so limited. Even if some monitoring requires measurement of values, the measuring may be performed separately from the monitoring. For example, a processor may monitor a voltage that is measured by a separate component. Dkt. No. 52 at 12–13.

Analysis

There are two issues in dispute. First, whether the claimed monitoring is necessarily continuous. It is not. Second, whether the claimed monitoring necessarily includes measuring. It does not.

The Court is not persuaded that monitoring is necessarily continuous or necessarily includes measuring. Notably, Defendant has not provided any evidence that the power-management purpose of the inventions is met only if the claimed monitoring is continuous or that monitoring necessarily includes measuring. Simply, there is no evidentiary basis for limiting the broad terms “monitor” and “monitoring” as Defendant proposes.

Accordingly, the Court rejects the “continually measuring” limitation and determines the Monitoring Terms have their plain and ordinary meaning without the need for further construction.

M. “reducing a magnitude of a difference”

Disputed Term	Plaintiff’s Proposed Construction	Defendant’s Proposed Construction
“reducing a magnitude of a difference” • ’247 Patent Claim 1	reducing the absolute value of the difference	indefinite

The Parties’ Positions

Plaintiff submits: This term refers to moving the operating frequency or voltage closer to a target frequency or voltage. “Magnitude” in the term denotes that when the operating frequency or voltage is lower than the target, the operating frequency or voltage is increased rather than decreased. In such a situation, the magnitude is reduced by increasing the operating frequency or voltage, while the difference would be reduced (made more negative) by decreasing the operating frequency or voltage. Dkt. No. 46 at 22–23.

In addition to the claims themselves, Plaintiff cites the following intrinsic and extrinsic evidence to support its position: **Intrinsic evidence:** '061 Patent fig.2, col.5 l.15 – col.7 l.38. **Extrinsic evidence:** Carbonell Decl. ¶¶ 84–88 (Plaintiff's Ex. E, Dkt. No. 46-6).

Defendant responds: The meaning of “reducing a magnitude of a difference” is not reasonably certain as it is not clear “what quantitative measure should be applied to the term ‘magnitude’” nor is it clear what it means for a difference to be “reduced by a ‘magnitude.’” Specifically, “reducing a magnitude of a difference” is a term of degree and the intrinsic record does not provide the requisite objective standard for measuring the degree. Plaintiff's proposed construction similarly fails. Dkt. No. 48 at 30–33.

Plaintiff replies: The term “magnitude” is inherently objective and thus is distinguishable from terms of degree that have been held to invalidate claims. Dkt. No. 52 at 13–14.

Analysis

The issue in dispute is whether the meaning of this term is reasonably certain. It is.

The substantially same issue was before the Court in *Huawei* and *ASUSTeK*. *Huawei*, 2017 U.S. Dist. LEXIS 108040, at *52–56; *ASUSTeK*, 2019 U.S. Dist. LEXIS 114957, at *22–25. Accordingly, and for the reasons set forth in *Huawei* and *ASUSTeK*, Defendant has not proven that “reducing the magnitude of a difference” renders any claim indefinite and construes the terms as follows:

- “reducing a magnitude of a difference” means “reducing the absolute value of the difference.”

V. CONCLUSION

The Court adopts the constructions above for the disputed and agreed terms of the Asserted Patents. Furthermore, the Parties should ensure that all testimony that relates to the terms addressed

in this Order is constrained by the Court's reasoning. However, in the presence of the jury the Parties should not expressly or implicitly refer to each other's claim construction positions and should not expressly refer to any portion of this Order that is not an actual construction adopted by the Court. The references to the claim construction process should be limited to informing the jury of the constructions adopted by the Court.

SIGNED this 22nd day of August, 2019.



ROY S. PAYNE
UNITED STATES MAGISTRATE JUDGE